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Part 61: Single-point gestures for screen readers

Technologies de l'information — Interfaces gestuelles entre dispositifs et méthodes —

Partie 61: Gestes n'utilisant qu'un seul point pour lecteurs d'écran

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Foreword

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For an explanation of the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see www.iso.org/iso/foreword.html.

This document was prepared by Joint Technical Committee ISO/IEC JTC 1, *Information technology*, Subcommittee SC 35, *User interfaces*.

A list of all parts in the ISO/IEC 30113 series can be found on the ISO website.

Any feedback or questions on this document should be directed to the user's national standards body. A complete listing of these bodies can be found at www.iso.org/members.html.

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Introduction

Screen readers are regarded as a default method of accessing ICT devices for people with visual impairments who are unable to see and understand the screens of these devices. The content on the screens, such as letters, words, numbers, punctuation, elements and so on, are spoken out loud by screen readers. Speakers or headphones connected to the ICT device become the main output components.

Single-point gestures are used for screen readers of several commercially available ICT devices including smart phones, PCs and so on. Potential variety and inconsistency among the single-point gestures might cause a serious accessibility problem for people with visually impairments. There is a strong need for international standards to define the single-point gesture so that visually impaired users do not get confused while they use ICT devices.

The functions of the screen readers include reading an item under the user's finger, pausing/resuming speech, speaking the location of the user's fingers on a screen, such as page numbers or rows, and so on. This document presents descriptions of single-point gestures and the corresponding functions of the screen readers.

The standard single-point gestures will harmonize with multi-point gestures for the screen readers. It is expected that users can use the screen readers easily and without confusion by executing the standard single-point gestures. The gestures are performed by the users regardless of a specific recognition technique, a certain interaction method or a device.

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Information technology — Gesture-based interfaces across devices and methods —

Part 61:
Single-point gestures for screen readers

1 Scope

This document defines single-point gestures for screen readers.

It specifies movements for clear and classified single-point gestures recognized by the screen readers.

It describes single-point gestures performed by a POI (point of interest). The single-point gestures are intended to operate in a consistent manner regardless of systems, platforms, applications or devices.

NOTE A POI can be manipulated by using an object such as a fingertip, a stylus, etc.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO/IEC 30113-11:2017, *Information technology — Gesture-based interfaces across devices and methods — Part 11: Single-point gestures for common system actions*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

— IEC Electropedia: available at http://www.electropedia.org/

— ISO Online browsing platform: available at https://www.iso.org/obp

3.1
gesture command
instruction to the system resulting from a gesture input by the user, e.g. select, move, delete

[SOURCE: ISO/IEC 30113-1:2015, 3.3]

3.2
screen reader
function that reads characters and other information on a screen aloud to a user in order to allow access to the information on the screen without viewing the screen

[SOURCE: ISO/IEC 24786:2009, 4.11]

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3.3
tap
touch a real (or virtual) surface briefly, typically less than one second, with POI(s) and then lift-off in approximately the same position

Note 1 to entry: Example points of interest are a fingertip, pen point, hand, etc.

[SOURCE: ISO/IEC 14754:1999, 4.13, modified – changed from digitizer to 'real (or virtual) surface' and from pen to 'point(s) of interest' and note added]

3.4
double-tap
touch twice rapidly a surface with POI(s)

[SOURCE: ISO/IEC 30113-12:2019, 3.15]

3.5
triple- tap
touch three times rapidly a surface with POI(s)

3.6
direct touch gesture
gesture utilized with a body part (e.g. a finger) or a physical object (e.g. a stylus) on an input device (e.g. a touch pad or a touch screen)

[SOURCE: ISO/IEC 30113-12:2019, 3.9]

3.7
tile menu
set of options displayed with a number of rows and columns, one of which is to be selected

[SOURCE: ISO/IEC 17549-2:2020, 3.9]

4 Description of single-point gestures for screen readers

To describe single-point gestures for screen readers, this document follows the form in ISO/IEC 30113-1:2015, A.3 and ISO/IEC 30113-11:2017, 5.4.

5 Descriptions of single-point gestures

5.1 “Left” gesture

5.1.1 General

The “left” gesture for screen readers is as specified in ISO/IEC 30113-11:2017, 8.2.2.

5.1.2 Specific instance

5.1.2.1 Going to a previous item

In the context of an object related to a time-based dimension (playing a video or a sound, browsing already used applications, etc.), the “left” gesture should be used to roll back to a previous status.

5.1.2.2 Going to a previous hierarchical level

In the context of an object related to a hierarchical dimension (menu and sub-menu navigation, list browsing), the “left” gesture should be used to roll back to a previous hierarchical level.

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